NASA Facts

National Aeronautics and Space Administration

Goddard Space Flight Center Greenbelt, Maryland 20771 (301) 286-8955



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NASA Earth Science Enterprise Images and Video via the World Wide Web

Beginner

Overview with a broad sampling of Earth-related images from various NASA programs

Earth from Space: A dataset of astronaut acquired imagery of Earth. http://earth.jsc.nasa.gov/

Earth Science Pictures: Press Release imagery from the Goddard Space Flight Center. http://pao.gsfc.nasa.gov/gsfc/earth/pictures/earthpic.htm

For Kids Only - NASA's Earth Science Enterprise:

Earth Science isn't just for grown-ups anymore. This site contains educational activities that make Earth science fun for kids of all ages. http://kids.mtpe.hq.nasa.gov

Images of Earth and Space: The Role of Visualization in NASA Science.

http://sdcd.gsfc.nasa.gov/ESS/images/images.html

Jet Propulsion Laboratory Public Image Archive: Collections of Earth-Observing planetary and astronomical missions. http://www.ipl.nasa.gov/pictures/ **NASA Image Exchange (NIX):** Web-based search engine for simultaneously searching one or more of NASA's on-line image and photo collections. http://nix.nasa.gov

NASA's Earth Science Enterprise Image Gallery: A collection of Earth Science images related highlighting NASA's Earth Science Enterprise efforts. http://www.earth.nasa.gov/gallery/index.html

NASA Johnson Space Center Digital Image Collection: Images of Earth from NASA crewed missions. http://images.jsc.nasa.gov

NASA Observatorium: Remote sensing and Space Science exhibits for the general public. http://observe.ivv.nasa.gov

Visualization of Remote Sensing Data: Imagery and data made available for public use. Includes environmental and astronomical data. http://rsd.gsfc.nasa.gov/rsd

Intermediate

NASA program specific pages which contain images/video on a specific research topic

A Global View from Space: Today, there are many satellites orbiting the Earth which make their data available for public use. This page is an interactive and intuitive web-based display of actual satellite imagery from around the globe.

http://sdcd.gsfc.nasa.gov/ISTO/dro/global/

El Niño 1997/98: TOPEX/Poseidon's El Niño Index 1997 - 98 shows how the volume of displaced warm surface water in the eastern tropical Pacific has changed through time.

http://topex-www.jpl.nasa.gov/enso97/el_nino_1997.html

El Niño Visualizations: The animations and images below show a combined perspective of the El Niño induced change in the sea surface topography as viewed from space by the NASA TOPEX radar altimetry satellite and sea surface temperature observed by NOAA's AVHRR sensor.

http://nsipp.gsfc.nasa.gov/enso/nino_update/

Fire Monitoring by Satellite: This site provides remote sensing data from a variety of satellites on the recent fires in Florida, Mexico, Indonesia, Brazil, Africa, and the Boreal regions.

http://modarch.gsfc.nasa.gov/fire_atlas/fires.html

Global Hydrology and Climate Center: Interactive Geostationary Weather Satellite Data. http://wwwghcc.msfc.nasa.gov/GOES/

Global Hydrology and Climate Center: Interactive global temperature anomaly maps. http://wwwghcc.msfc.nasa.gov/temperature/

Global Tropospheric and Stratospheric Temperatures: Interactive Microwave Sounding Unit data selection page.

http://www.ghcc.msfc.nasa.gov/MSU/msu.html

GLOBE Visualization Home Page: Maps and time plots of GLOBE data, including El Niño. http://globe.gsfc.nasa.gov/cgi-bin/home.cgi HOTSPOTS - University of Hawaii: Selected western-hemisphere sites updated every 10 to 30 minutes. Data is collected by geostationary GOES 8 and GOES 10 satellites in 15 minute intervals. http://volcano1.pgd.hawaii.edu/

Hurricanes: Several QuickTime and MPEG videos of satellite views of recent hurricanes and thunderstorms, plus a clip of a Space Shuttle launch from 22,000 miles in space.

http://rsd.gsfc.nasa.gov/rsd/movies/movies.html

Jet Propulsion Lab's El Niño/La Niña Watch: This page presents images and news releases based on observations of the El Niño/La Niña phenomenon in the Pacific Ocean by the U.S./French TOPEX/Poseidon and other NASA/JPL satellites and instruments. http://www.jpl.nasa.gov/elnino/

Jet Propulsion Lab Imaging Radar Home Page: See the Earth's surface, and below it in places, with orbiting radar. Primarily used for environmental research, the data are also useful in archaeological studies. http://southport.jpl.nasa.gov

NASA's Total Ozone Mapping Spectrometers (TOMS): Ozone information, images, and animations from the instruments that brought us the first space views of the Antarctic ozone hole. http://jwocky.gsfc.nasa.gov/

Oceanography from the Space Shuttle: A pictorial survey of oceanic phenomenon visible to the naked eye from space.

http://daac.gsfc.nasa.gov/CAMPAIGN_DOCS/OCDST/shuttle_oceanography_web/oss_cover.html

Sea-viewing Wide Field-of-View Sensor (SeaWiFS) Project Image Archive: An archive of ocean-related images and animations from the SeaWiFS satellite, including links to other interactive sites of interest. http://seawifs.gsfc.nasa.gov/SEAWIFS/IMAGES/IMAGES.html

SeaWiFS Project Ocean Color Gallery: General-use images of phytoplankton concentrations from Nimbus-7's Coastal Zone Color Scanner. Some images have been combined with land-surface data to create images of "The Living Earth."

http://seawifs.gsfc.nasa.gov/SEAWIFS/IMAGES/ GALLERY.html

SeaWiFS Project Movie Gallery: A collection of rotating Earths, showing land cover, temperature, cloud cover and a variety of other environmental aspects. http://seawifs.gsfc.nasa.gov/SEAWIFS/IMAGES/MOVIES.html

SIR-C/X-SAR: Space Radar Images of the Earth from the Space Shuttle.

http://www.jpl.nasa.gov/radar/sircxsar/

The Earth Observing System (EOS) Educators' Visual Materials: A variety of remote sensing images comprising a collection for teacher' use. http://eospso.gsfc.nasa.gov/eos_edu.pack/toc.html **TOMS Volcanic SO₂ and Ash Homepage:** This Home Page describes research performed by the TOMS SO₂ and Ash Group at the NASA Goddard Space Flight Center to detect, track and measure volcanic eruption plumes from space. The group uses satellite data from Total Ozone Mapping Spectrometer (TOMS) instruments to detect sulfur dioxide gas (SO_2) and ash fallout produced by volcanoes.

http://skye.gsfc.nasa.gov/index.html

Tropical Rainfall Measuring Mission (TRMM): An archive of tropical rainfall related images and animations from TRMM.

http://trmm.gsfc.nasa.gov/archive.html

Weather Satellite Imagery and Video: The latest from the NASA-built, NOAA-operated GOES spacecraft.

http://rsd.gsfc.nasa.gov/goesb/chesters/web/ goesproject.html

Winds Website: This site provides information and data from NASA's scatterometry projects. http://winds.jpl.nasa.gov

Advanced

Detailed pages on specific data sets, intended for the research community and advanced user

Atmospheric Chemistry Data, Information and Resources: Provides information about UARS (Upper Atmosphere Research Satellite), TOMS (Total Ozone

Atmosphere Research Satellite), TOMS (Total Ozone Mapping Spectrometer), SSBUV (Shuttle Solar Background Ultraviolet), and other atmospheric chemistry related data.

http://daac.gsfc.nasa.gov/CAMPAIGN_DOCS/ ATM_CHEM/ac_main.html

Atmospheric Dynamics, Data, and Information Resources: Provides information about TOVS data, Data Assimilation Office (DAO) products and the CPC/ACDB 4D dataset, and other related data. http://daac.gsfc.nasa.gov/CAMPAIGN_DOCS/atmospheric_dynamics/ad_main.html

Geomorphology from Space: An out-of-print 1986 NASA publication edited by Nicholas M. Short, Sr. and Robert W. Blair, Jr. designed for use by the remote sensing science and educational communities to study

landforms and landscapes.

http://daac.gsfc.nasa.gov/DAAC_DOCS/geomorphology/GEO HOME PAGE.html

General Interest Coastal Zone Color Scanner (CZCS) Scenes: Striking examples of ocean color data obtained by remote sensing from space. http://daac.gsfc.nasa.gov/CAMPAIGN_DOCS/OCDST/classic_scenes/00_classics_index.html

Global Land Biosphere Data and Information Web Site at the Goddard Space Flight Center's Distributed Active Archive Center (DAAC): This site provides information on what Land Biosphere Data are, how to get it, how to understand it, and who has been involved in bringing it to you.

http://daac.gsfc.nasa.gov/CAMPAIGN_DOCS/ LAND_BIO/GLBDST_main.html Goddard DAAC's Interactive Coastal Zone Color Scanner Browser: Research-quality imagery available from the CZCS archive at the Goddard Space Flight Center.

http://daac.gsfc.nasa.gov/CAMPAIGN_DOCS/ BRS_SRVR/czcsbrs_main.html

Monsoons: Two- and three-dimensional animations of a monsoon over Asia.

http://daac.gsfc.nasa.gov/CAMPAIGN_DOCS/ atmospheric_dynamics/ ad_images_dao_animations.html

Ocean Color Data, Information and Resources:

Links to ocean color data, images, software and educational resources.

http://daac.gsfc.nasa.gov/CAMPAIGN_DOCS/OCDST/OB main.html

The Remote Sensing Tutorial: A detailed understanding of the utility of satellite data including fundamental principles of electromagnetic energy, especially as they relate to sensor design and function.

http://code935.gsfc.nasa.gov/Tutorial/TofC/Coverpage.html

TOPEX/POSEIDON Quick Look & 10-Day Browse Images Data: Images and video clips from the U.S.-French mission to study ocean dynamics and their effects on global climate.

http://podaac.jpl.nasa.gov/topex/

Urban Sprawl: An MPEG animation, using topographic and demographic data, of urban growth around San Francisco Bay, 1850-1990.

http://geo.arc.nasa.gov/esdstaff/william/urban.html